

**REMARKS**

Claims 1-3 and 16 are canceled in the present amendment. Upon entry of the amendment, claims 4, 6-10, 12-14, and 16 are pending and rejected; claims 1-3, 5, 11, and 15 are canceled.

Applicants make these amendments in order to expedite prosecution of these claims and without prejudice to pursuing the originally presented or cancelled subject matter in a later application claiming benefit of this application, and particularly without prejudice to determination of equivalents of the subject matter of this application or any later application claiming benefit of this application.

**Rejections under 35 U.S.C. § 103(a)**

Claims 1-3, 5, 6, 7, 9, 10, 11, 14, and 15 are rejected under 35 U.S.C. § 103(a). As an initial matter, the rejection of claim 1-3 is rendered moot by the cancellation of the claims. Claims 4, 5, 6, and 7 are directed to methods of using hexahydroisoalpa acids as an antimicrobial agent by incorporating hexahydroisoalpa acids into a food packaging material; claims 8-10 are directed to a food packaging material that incorporates a hexahydroisoalpa acid; and claim 14 is directed to methods of making a food packaging material incorporating hexahydroisoalpa acids.

Claims 4, 8, 12, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barney et al. (U.S. Patent No. 5,455,038; hereinafter "Barney I") in view of Lutz et al., (U.S. Publication No. 2004/0091558; hereinafter "Lutz"); claims 6, 9, and 14 are rejected over Barney I in view of Lutz and Barney et al. (U.S. Patent No. 7,005,453; hereinafter "Barney II"); claims 7 and 10 are rejected over Barney I. For the reasons detailed below, Applicants respectfully disagree with the rejection, and request that it be withdrawn.

To establish a prima facie case of obviousness, the Examiner must show: (i) that the cited references teach or suggest all the claim limitations present in Applicants' invention; (ii) that there is a suggestion or motivation to modify the reference or combine reference teachings, either present in the references or in the general knowledge present in the art; and (iii) that the cited references provide a reasonable expectation of success. M.P.E.P. 2143.

Applicants submit that a *prima facie* case is not established in the Action in that one or more of the three requirements (i) – (iii) is not met.

Barney I describes methods of inhibiting *Listeria* growth in food by treating the food with a solution of tetrahydroisohumulone or hexahydrocolupulone. Barney I fails to teach or suggest that a hop acid could be incorporated into a food packaging material, fails to teach or suggest a food packaging material having a hexahydroisoalpha acid, and fails to teach or suggest a method of making a food packaging material having a hexahydroisoalpha acid. Moreover, Barney I fails to teach or suggest the use of a hexahydroisoalpha acid as an antimicrobial, which is acknowledged by the Examiner (Office action mailed May 8, 2007, page 4, third paragraph). The Examiner states, “Barney does not appear to disclose that the hop acids are hexahydroisoalpha acids.” To remedy the deficiencies of Barney I, the Examiner cites Lutz. However, Lutz does not remedy the Barney I deficiencies.

Lutz describes the use of hexahydroisoalpha acids in shampoos and skin creams (Examples 1-5, paragraphs 0089-0110, and Example 6, paragraphs 0111-0113). The Examiner asserts that it would be obvious for one of skill in the art to use the hexahydroisoalpha acids described by Lutz in the methods described by Barney I. Applicants respectfully disagree. The antimicrobial compositions described by Lutz are personal care products (Figures 1-7). In particular, Lutz describes anionic shampoos (Examples 1-5, paragraphs 0089-0110) and creams for application to the body (Example 6, paragraphs 0111-0113; and paragraph 0046). Barney I on the other hand, describes methods of inhibiting *Listeria* growth in food by treating the food with a solution of tetrahydroisohumulone or hexahydrocolupulone. Applicants submit that one of ordinary skill would not be motivated to combine the teachings of Lutz (relating to personal care products) with the teachings of Barney I (relating to food treatment). As such, Applicants respectfully submit that any assertion of a combination of Barney I and Lutz is improper, and for this reason in and of itself, a *prima facie* case of obviousness is not established.

Moreover, like Barney I, Lutz fails to teach or suggest that any hop acid should be incorporated into a food packaging material, fails to teach or suggest a food packaging material having a hexahydroisoalpha acid, and fails to teach or suggest a method of making a food packaging material having a hexahydroisoalpha acid. As such, Applicants submit that the Action

provides no basis for Barney I and Lutz in combination to teach or suggest Applicants' claimed subject matter, and further more provides no basis for a reasonable expectation of success.

Finally, claims 6-9 and 14 are rejected in view of Barney I, Lutz and Barney II. However, the deficiencies of Barney I and Lutz are not remedied by Barney II.

Barney II describes the use of hexahydroisoalpa acids in the vaginal area. In particular, Barney II describes the use of hexahydroisoalpa acids in “feminine hygiene products for treating the diseases associated with *S. aureus* infections and infestations, i.e., toxic shock syndrome, without disrupting the normal bacterial flora” in the vagina (Abstract). Barney I on the other hand describes methods of inhibiting Listeria growth in food by treating the food with a solution of tetrahydroisohumulone or hexahydrocolupulone. Applicants submit that one of ordinary skill would not be motivated to combine the teachings of Barney II (relating to feminine hygiene products) with the teachings of Barney I (relating to food treatment). As such, Applicants respectfully submit that any assertion of a combination of Barney I and Barney II is improper, and for this reason in and of itself, a *prima facie* case of obviousness is not established. Moreover, Barney II, like Barney I and Lutz, fails to teach or suggest that any hop acid should be incorporated into a food packaging material, much less that hexahydroisoalpa acids should be used, as recited in the pending claims; and fails to teach or suggest a food packaging material having a hexahydroisoalpa acid, and fails to teach or suggest a method of making a food packaging material having a hexahydroisoalpa acid.

The standard in determining obviousness is not whether certain experiments *could be tried*, but whether the prior art suggested that the claimed modifications *should be made*, and further suggested that food packaging materials containing such modifications *would function successfully*. *In re Dow Chemical Co.*, 837 F.2d 469 (Fed. Cir.,1988). In this case, court held:

The consistent criterion for determination of obviousness is whether the prior art would have suggested to one of ordinary skill in the art that *this process should be carried out* and would have a *reasonable likelihood of success*, viewed in the light of the prior art. Both the suggestion and the expectation of success must be founded in the prior art not in the applicant's disclosure. *Id* at 473. (citations omitted; emphasis added.)

In the absence of a suggestion that a modified food packaging material should be made, and if made, that such a food packaging material would function successfully, the Examiner has failed to establish a *prima facie* case of obviousness. additionally, where the cited references fail to establish a reasonable expectation of success, the obviousness rejection is improper and should be withdrawn.


In sum, the references cited in the Action, alone or in combination, fail to provide the requisite motivation to combine; fail to provide a reasonable expectation of success; and fail to teach or suggest all of the claim limitations. Accordingly, the rejection of the pending claims under 35 U.S.C. § 103 is respectfully requested to be withdrawn.

**CONCLUSION**

In view of the above remarks, Applicants believes the pending application is in condition for allowance. Accordingly, the Examiner is respectfully requested to pass this application to issue. Should any of the claims not be found to be allowable, Applicants respectfully request the Examiner to telephone Applicants' undersigned representative at the number below so that a telephonic interview may be scheduled. Applicants thank the Examiner in advance for this courtesy.

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